



# UNITED STATES PATENT AND TRADEMARK OFFICE

mt

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,824	12/07/2004	Tetsunori Otaguro	INO-C499	7451

7590 02/27/2007  
George A. Loud, Esquire  
BACON & THOMAS  
Fourth Floor  
625 Slaters Lane  
Alexandria, VA 22314-1176

EXAMINER

FOX, CHARLES A

ART UNIT PAPER NUMBER

3652

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/27/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/516,824

Applicant(s)

OTAGURO, TETSUNORI

Examiner

Charles A. Fox

Art Unit

3652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,9-12,16,17 and 19-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,9-12,16,17 and 19-22 is/are rejected.
- 7) ☒ Claim(s) 1 and 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 20060906.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 3652

This application has been reassigned to Examiner Charles A. Fox.

### ***Claim Objections***

Claims 1 and 7 are objected to because of the following informalities: the preamble of claims 1 and 7 are directed to only a conveyance system in a clean room. However the body of the claim positively recites structure associated with the treatment devices that is not part of the conveyance system. Either the preamble must be amended to reference the structure outside of the conveyance system or the structure not associated with the conveyance system should be cancelled from the claims. In the art rejections below the structure of the treatment devices is treated as functional language and is not given any weight regarding patentability. Appropriate correction is required.

### ***Terminal Disclaimer***

The terminal disclaimer filed on November 30, 2006 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent number 6,702,099 has been reviewed and is accepted. The terminal disclaimer has been recorded.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3652

Claims 1,4-7,9,10,12,16,17 and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorenz in view of Huber et al. Regarding claims 1,4,6,7,16 and 17 Lorenz US 6,336,546 teaches a container conveying system in a clean room comprising:

a conveyance apparatus (1) with a main portion for conveying containers (6) along a main path generally parallel to an array of processing devices(2) and at least one branch path extending from the main path towards the treatment devices;

wherein the main conveyance path provides for a plurality of horizontally arranged parallel paths;

a transfer apparatus with a lifter capable of moving horizontally as well as moving a cassette vertically and pivotally in a horizontal plane;

said array of treatment device extends at least along one side of said main path and being provided with interfaces for receiving a cassette;

said interface device capable of removing a wafer from the cassettes for processing;

wherein said transfer device moves the cassettes between the conveyance apparatus and the treatment devices. Lorenz does not teach the transfer device as being freely movable within the ceiling of the clean room. Huber et al. US 2002/0119036 teaches a conveyance system for a clean room comprising:

a plurality of arrayed treatment devices (2)

a transport (10) that is freely movable in the ceiling of said clean room;

Art Unit: 3652

wherein said transport is capable of lifting and lowering a cassette as well as rotating the cassette about a vertical axis and a plurality of transports may be used as deemed necessary by the designer of the clean room. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Lorenz with a freely movable transport device as taught by Huber et al. in order to increase the delivery area of the transport thereby reducing the number of transport device needed in the clean room which leads to a decreased chance of debris being generated in the clean room.

Regarding claims 9 and 10 Lorenz further teaches the main path as having parallel horizontally arranged conveyors that run in opposing direction and treatment device on both sides of the main path with transport devices arranged on each side of the main path.

Regarding claims 5 and 12 Lorenz also teaches that said main and branch paths are conveyors.

Regarding claims 19-22 Lorenz further teaches that all main conveyance paths are linearly straight.

Claims 3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lorenz and Huber et al. as applied to claims 1 and 9 above, and further in view of Doche. Lorenz and Huber et al. teach the limitations of claims 1 and 9 as above, they do not teach the main conveyance device as having vertically stacked conveyors. Doche US 5,509,772 teaches a conveyance system for wafer cassettes wherein the main conveyance path is comprised of vertically stacked parallel conveyors (3). It

Art Unit: 3652

would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Lorenz and Huber et al. with vertically stacked conveyors in order to decrease the footprint of the conveyance system, thereby allowing the size of the clean room to be decreased.

***Response to Amendment***

The amendments to the specification and claim filed on November 30, 2006 have been entered into the record.

***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 3652

The prior art made of record and not relied upon, but considered pertinent to applicant's disclosure is: Heinemann 2002, Peiter 2003 and Mariano et al. 2006.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles A. Fox whose telephone number is 571-272-6923. The examiner can normally be reached between 7:00-4:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached at 571-272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*Charles A. Fox* 2-22-07  
Charles A. Fox  
Examiner  
Art Unit 3652